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ABSTRACT

Developed by participants in an inservice workshop at the University of Wyoming, this manual lists 26 educational strategies that make use of current educational technologies, their corresponding skill development, and the content areas involved. For example, one strategy listed is to have students create their own letterhead to be used throughout the year for assignments. Skills developed during this activity include time management, layout and design/format, measurement, and proofreading. The content area consists of desktop publishing, word/information processing, and communications. Other classroom activities listed are: (1) having students create a monthly newsletter; (2) importing tables, graphs, text, clip art, and graphics into selected software; (3) having students make pretend databases of friends, favorite foods, etc.; (4) comparing newspaper, magazine, and junk-mail advertisements and redesigning the ads; (5) criticizing television commercials; and (6) using electronic mail. Also included in the manual are nine overall strategies for use by teachers in integrating technology into their classrooms. These include techniques for designing assignments, being a resource person, looking for gaps in learning, developing an assignment sheet, overcoming students' fear of computers, preparing overheads, accommodating special student populations, and modifying software and hardware for students with special needs. (DB)

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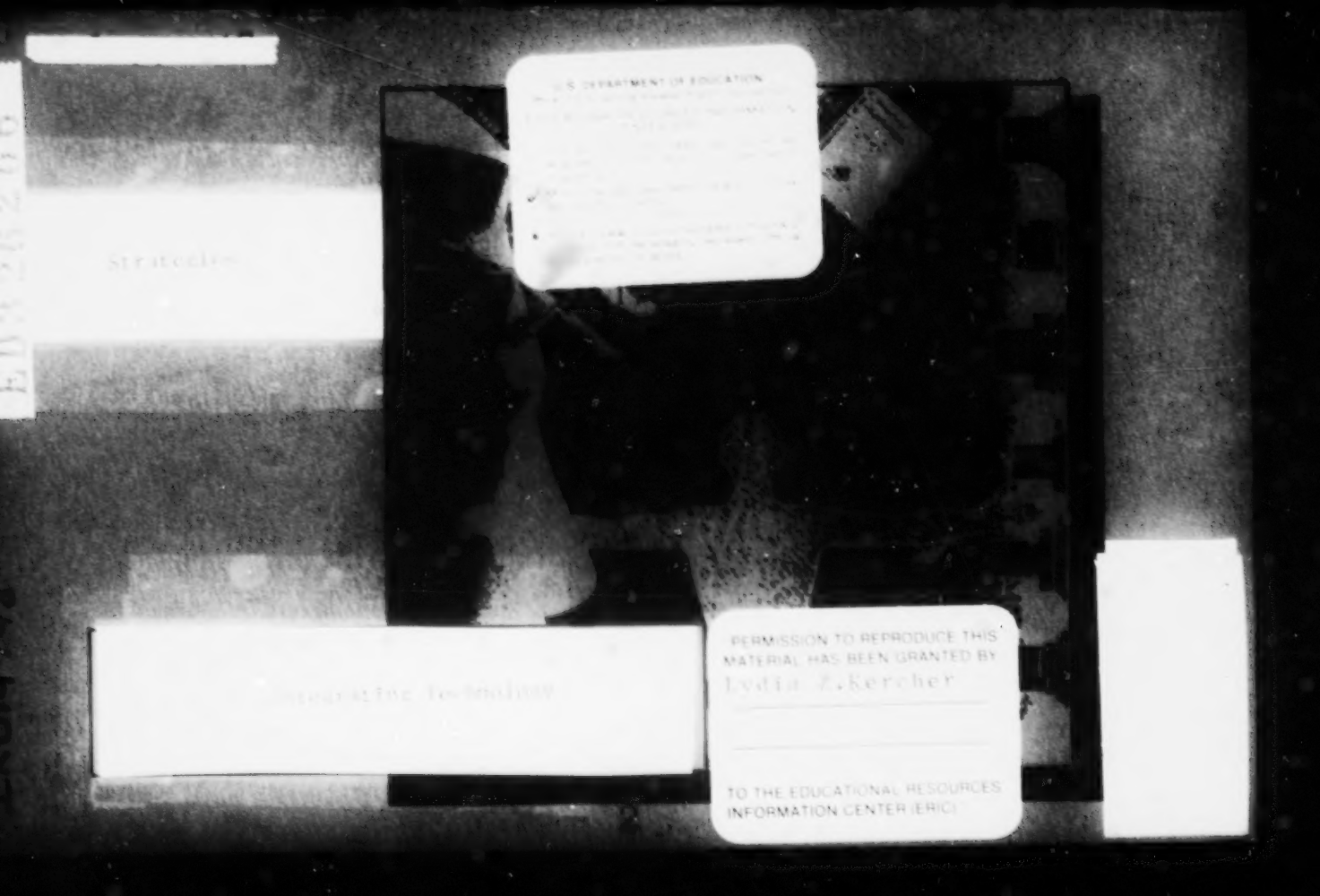
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On the Cover

Permission was granted to photocopy the cover from T.H.E. (Technological Horizons in Education) Journal, 150 El Camino Real, Suite 112, Tustin, CA 92680-3615

About the Cover

> The effectiveness of the technology being integrated into schools depends, ultimately, on people. Now more than ever, professional educators and administrators need some form of inservice training if they are to remain in step. Our cover, by art director Karen Fong, shows a collage of images and icons representing the myriad techniques and technologies currently utilized in education. Providing proficiency in these new tools is the objective of this issue's theme, Faculty Development. (T.H.E. Journal, 17(10), p.4.)

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| | | |
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Lydia Kercher, Assistant Professor
University of Wyoming
Workshop Director

# INTRODUCTION

Educators are urged to take a long hard look at present curriculum, the rapidly changing job market, sociological changes, and especially technological changes in the workplace. It is imperative that changes are made in the curriculum to incorporate concepts that focus on these changes and, in addition, focus on what modifications can be made to accommodate those populations considered to be non-traditional.

This manual is a product developed by participants in an inservice workshop conducted by the Vocational Education faculty at the University of Wyoming and funded through a grant from the Wyoming State Department of Education under the Carl D. Perkins Vocational Education Act, P.L. 98-524.

All strategies developed can be adapted to accommodate special populations. Project participants and writers were:

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Olive Church, University of Wyoming
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Larry Jansen, University of Wyoming
Lydia Kercher, University of Wyoming
Dennis Mott, Oklahoma State University

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Develop picture dictionaries, word games, and puzzles | Vocabulary building, spelling, word usage in a sentence, and punctuation | Desktop Publishing<br>Communications<br>Word/Information Processing<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Divide students into teams and have each team create a birthday card | Teamwork, communication, proofreading, layout and design/format, measurement, and composition | Desktop Publishing<br>Word/Information Processing<br>Communications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Have students create a monthly newsletter | Interviewing, organizational skills, composing, proofreading, keyboarding, editing, and deadlines | Desktop Publishing<br>Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Discuss and work problems regarding the comparative cost of information transmittals, via Fax, regular mail, long-distance phone call, E-Mail, Federal Express, UPS, etc. | Decision Making, researching, and price comparison | Desktop Publishing<br>Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Tape (using a video camera) students in action (speaking, playing roles), then play back (on VCR) for them to see and critique themselves | Communications, oral presentation, writing, proofreading, and dress | Communications<br>Word/Information Processing<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Design a product/course that doesn't exist. Incorporate the latest technologies | Brainstorming, creativity, team work, discussion, oral presentation, writing, thinking and problem solving, and marketing | Desktop Publishing<br>Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Assign groups to create an ergonomically designed workstation | Research, layout and design, purchasing, human relations, equipment/software comparisons, creativity, writing, proofreading, and teamwork | Desktop Publishing<br>Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Have students perform a database search on a topic approved by the instructor | Research, decision making, writing, proofreading, word families, basic search commands and command statement format | Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Use the telephone to show all the features and how they are used, and then let students practice | Verbal communication, decision making, and problem solving | Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Videotape a business show transmitted by satellite<br><br>Discussion | Business, financial, economic, technological, political, social, moral, ethics, comparison, global economy, etc. | VCR/player<br><br>Satellite<br><br>Communications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Allow student $10,000 to select stocks to buy and sell over a period of time. Must consider commission | Decision making, math calculations, planning | Computer with Xpress (or similar)<br><br>Communications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Create a database, using names of favorite music groups or special people that students are familiar with. Ask them to find or try to find their addresses | Research, decision making, writing, proofreading, word families, basic search commands and command statement format | Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| When introducing components of the computer, explain to students practical applications that they may be familiar with. Have them come to class with a few ideas or applications that they may be familiar with | Critical thinking, creative thinking | Desktop Publishing<br>Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Have students create their own letterhead to be used throughout the year for assignments | Time management, layout and design/format, measurement, and proofreading | Desktop Publishing<br>Word/Information Processing<br>Communications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Design the same project on desktop publishing and on typesetting equipment | Comparison/contrast of quality, price, and timeliness | Desktop Publishing<br><br>Word/Information Processing |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Students view videos (borrow, rent, buy, free) on Various subjects<br><br>Discussion | Proper techniques: verbal/ nonverbal communications, dress, interviews, etc. | Desktop Publishing<br><br>Word/Information Processing<br><br>Communications<br><br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Import tables, graphs, text, clip art, and graphics into selected software | Develops keyboarding, proof-reading, editing, design and layout/format | Desktop Publishing<br>Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Have students make pretend databases of friends, favorite foods, etc. | Keyboarding, decision making | Word/Information Processing<br><br>Computers |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Compare newspaper, magazine, and "junk-mail" ads. Redesign ads | Critical thinking, creative thinking | Desktop Publishing<br><br>Graphics |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| View TV commercials<br><br>1. Discuss what they like<br>2. Discuss what they dislike<br>3. Redesign commercial<br>4. Watch for language, culture, music | Critical thinking, creative thinking, global understanding, culture | Television<br><br>Desktop Publishing<br><br>Graphics |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Use TV Guide to create database of business programs via satellite | Keyboarding, decision making | Communications<br>Satellite<br>Word/Information Processing |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Concept of electronic mail<br><br>1. Student composes a letter, saves to disk, hands in disk<br>2. Instructor types a short response to letter and returns to student | Composition<br>Reading | Word/Information Processing<br><br>Communications<br><br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Have students categorize software packages and form a database | Research, team work, cost comparison, decision making, writing, proofreading, and analysis | Desktop Publishing<br>Word/Information processing<br>Communications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Use demonstration software packages to introduce different types of software available on the market | Following directions, cost comparisons, team work, decision making, problem solving, writing, and proofreading | Desktop Publishing<br>Word/Information Processing<br>Communications<br>Telecommunications |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Take a field trip to observe a travel agency | Conduct, telecommunications, time management, money management, comparison of transportation modes, communications, and decision making | Communications<br>Telecommunications<br>Word/Information Processing |

| Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Have students analyze and design advertising media--from both the consumer's and the marketer's point of view | Analytical thinking, decision making, writing, proofreading, oral presentation, cost analysis, and ethics | Desktop Publishing<br>Word/Information Processing<br>Communications<br>Telecommunications |

**Overall Strategy**

Design assignments

1. For small-group work
2. To allow creativity
3. That can be broken down into parts
4. Where students prioritize
5. Where students use a variety of equipment
6. That allow for decision making

**Skill Development**

**Technology/Content Area**

Desktop Publishing

Word/Information Processing

Communications

Telecommunications

**Overall Strategy**

Be a resource person and a colleague (non-traditional)

1. Set aside specific time periods for conferences or "drop in" to discuss personal or class anxiety
2. Help students find information to complete assignments
3. Reassure students that they can make up work

**Skill Development**

**Technology/Content Area**

Desktop Publishing

Communications

Word/Information Processing

Telecommunications

| Overall Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Look for "gaps" in learning (i.e., typing skills, proofreading, writing)<br><br>Give opportunities for additional work/get outside help | | Desktop Publishing<br><br>Word/Information Processing<br><br>Communications<br><br>Telecommunications |

| Overall Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Assignment Sheet<br><br>1. List requirements clearly<br>2. Check-off blank to indicate assignment was completed<br>3. Tally accumulated points<br>4. List completion dates | | Desktop Publishing<br><br>Communications<br><br>Word/Information Processing<br><br>Telecommunications |

**Overall Strategy**

To alleviate "technofright" for students beginning to work on computers have a "fun" software program " (i.e. "Exploring the IBM PC")

**Skill Development**

**Technology/Content Area**

Desktop Publishing

Communications

Word/Information Processing

Telecommunications

| Overall Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Prepare overheads with one concept at a time | | Photocopier<br>Desktop Publishing<br>Word/Information Processing<br>Telecommunications<br>Communications |

| Overall Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Enlarge class handouts to accommodate visually handicapped | | Photocopier<br>Desktop Publishing<br>Communications<br>Word/Information Processing<br>Telecommunications |

| Overall Strategy | Examples | Technology/Content Area |
| --- | --- | --- |
| Modify software and hardware for students with special needs | Hardware: braille pads, magnifier, oversized keyboards, large screens, voice synthesizer, foot pedals,<br><br>Software: cursor adjustments, manuals on cassettes, color adjustments, screen format, mouse control | Desktop Publishing<br><br>Communications<br><br>Word/Information Processing<br><br>Telecommunications |

| Overall Strategy | Skill Development | Technology/Content Area |
| --- | --- | --- |
| Develop a partnership program for students with special needs through peer tutors, senior citizens, or aides | | Desktop Publishing<br>Communications<br>Word/Information Processing<br>Telecommunications |

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END

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